## RESEARCH AID

# CONSTRUCTION PROJECTS IN COMMUNIST CHINA PERFORMED WITH SOVIET ASSISTANCE 1949-57



CIA/RR RA-28 7 April 1958

## CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

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10 April 1958

TO: Holders of CIA/RR RA-28, Construction Projects in Communist China Performed with Soviet Assistance 1949-57, 7 April 1958, SECRET.

The petroleum refinery at Tu-shan-tzu in Sinkiang, located incorrectly on the map inside the back cover, should be located at  $44^{\rm o}20^{\rm i}$  N -  $84^{\rm o}51^{\rm i}$  E.

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> CIA/RR RA-28 (ORR Project 47.2015)

CENTRAL INTELLIGENCE AGENCY
Office of Research and Reports

CIA/RR RA-28 (ORR Project 47.2015) S-E-C-R-E-T

# CONSTRUCTION PROJECTS IN COMMUNIST CHINA PERFORMED WITH SOVIET ASSISTANCE\* 1949-57

Soviet assistance to industrial construction projects has been a significant factor in the rapid industrialization of Communist China since 1949. This assistance has taken the form of two economic credits totaling 1,720 million rubles against which the Chinese Communists have drawn to help pay for imports from the USSR. These imports include equipment for the construction of the 211 major projects which the USSR has committed itself to assist China to construct.\*\* The equipment which the USSR has promised to deliver to China during the period 1949-62 is valued at 8,100 million rubles\*\*\* and includes all technical assistance relating to the 211 projects.

Soviet credits and exports of equipment to Communist China during the period 1949-57 may be summarized as follows:

Date of	Number of	Cred	its	value of Equipment Committed for Delivery Through 1962 Under Existing Agreements		
Agreement	Projects Involved	(Million Rubles)	(Million US \$)	(Million Rubles)	(Million US \$)	
February 1950 September 1953 October 1954 April 1956	50 91 15 55	1,200 0 520 0	300 0 130 0	0 5,200* 400 2,500	0 1,300* 100 625	
Total	<u> 211</u>	1,720	430	8,100	2,025	

<sup>\*</sup> Includes value of equipment and technical assistance for the 50 projects covered in the February 1950 agreement.

<sup>\*</sup> The estimates and conclusions contained in this research aid represent the best judgment of ORR as of 1 February 1958.

<sup>\*\*</sup> Only 205 of the 211 Soviet aid projects are considered by the Chinese Communists to be industrial construction projects. The remaining six involved the construction of research institutes and the renovation or expansion of previously constructed projects. Other announcements indicate that agreements have been signed by which the USSR will assist Communist China on 205 industrial projects and 21 "individual workshops." (See the map, inside back cover.)
\*\*\* Rubles may be converted to dollars at the official exchange rate of 4 to 1, which is not necessarily an accurate reflection of the dollar value.

These projects are chiefly in the field of heavy industry and include construction of metallurgical, power, machine-building, chemical, defense, automobile, and tractor-manufacturing plants, petroleum installations, and the like. Assistance by the USSR includes geological surveying, selection of construction sites, designing, supervision of construction-installation work, and, on completion of construction, assistance in the production process of the new plant.

The Chinese Communists originally planned to start construction of 145 projects in the First Five Year Plan, but no more than 131 were begun by the end of 1957. In December 1957, Peking announced that 56 projects had been completed and that 10 more would be in partial operation by the end of the year. With the full completion of these 66 projects, 145 of the 211 projects remain to be completed.

Until the Chinese Communists define the term "Soviet aid projects" and identify many more projects than they have to date, any list which seeks to identify such projects must be considered tentative. Numerous difficulties\* attendant on the compilation of the list which follows necessitated an evaluation of firm, probable, or possible for every project considered. Documentation for this list is maintained in the files of the responsible branch.

<sup>\*</sup> For example, the USSR has assisted on hundreds of projects, but most of this assistance has been so minor that it cannot be considered in the category of the 211 "Soviet aid projects." Also, the multiplicity of projects reported to be under construction at one construction site makes it difficult to determine whether the projects should be considered as components of one over-all project or as separate projects. For example, components of the An-shan Iron and Steel Combine -- such as individual blast furnaces -- are reported by the Chinese Communists as separate projects receiving Soviet assistance. The entire Wu-han Steel Combine, on the other hand, is reported to be only one of the earlier 156 projects.

Evaluation	Industry	Installation Location		Date Started	Date Completed
Firm	Iron and steel	Blast Furnace No. 3	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1956	1957
Firm	Iron and steel	Blast Furnace No. 5	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1954	July 1955
Firm	Iron and steel	Blast Furnace No. 6	An-shan, Liaoning 41°07'N - 122°57'E	1953	October 1954
Firm	Iron and steel	Blast Furnace No. 7	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1953	Early 1954
Firm	Iron and steel	Blast Furnace No. 8	An-shan, Liaoning 41°07'N - 122°57'E	1952	1953
Firm	Iron and steel	Blast Furnace No. 9	An-shan, Liaoning 41°07'N - 122°57'E	1955	1956
Firm	Iron and steel	Blooming Mill No. 2	An-shan, Liaoning 41°07'N - 122°57'E	1955	1956
Firm	Iron and steel	Ferro-Alloy Plant	Kirin, Kirin 43 <sup>0</sup> 51'N - 126 <sup>0</sup> 33'E	N.A.	Before August 1956
Firm	Iron and steel	Iron Mine, Ore Dressing, and Sintering Plant (Kung-ch'ang-ling)	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	N.A.	Opera- tional 1956
Firm	Iron and steel	Iron Mine, Ore Dressing, and Sintering Plant (Ta-ku-shan)	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1954	1957
Firm	Iron and steel	Iron Mine, Ore Dressing, and Sintering Plant (Tung-an-shan)	An-shan, Liaoning 41°07'N - 122°57'E	1956	1959 (Plan)
Firm	Iron and steel	Medium Plate Mill No. 2	An-shan, Liaoning 41°07'N - 122°57'E	June 1956	1957
Firm	Iron and steel	Rail-Structural Mill (Heavy Rolling Mill)	An-shan, Liaoning 41°07'N - 122°57'E	1952	1953
Firm	Iron and steel	Seamless Tube Mill	An-shan, Liaoning 41°07'N - 122°57'E	1952	1953

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Evaluation	Industry	Installation	Location	Date Started	Date Completed
Firm	Iron and steel	Sheet Mill No. 2	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1953	1954
Firm	Iron and steel	Steel Works No. 1	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	August 1953	1955
Firm	Iron and steel	Steel Works No. 2	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1954	1956
Firm	Iron and steel	Steel Combine	Pao-t'ou, Inner Mongolian Auton- omous Region 40 <sup>0</sup> 36'N - 110 <sup>0</sup> 03'E	1957	1962 (Plan)
Firm	Iron and steel	Steel Combine	Wu-han, Hupeh 30°34'N - 114°13'E	1956	1962 (Plan)
Probable	Iron and steel	Precast Reinforced Concrete Products Plant	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1951	June 1954
Probable	Iron and steel	Refractory Mate- rials Plant	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1954	November 1955
Possible	Iron and steel	Blooming Mill No. 1	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	May 1955	November 1955
Possible	Iron and steel	Iron Works	Ma-an-shan, Anhwei 31 <sup>0</sup> 44'N - 118 <sup>0</sup> 29'E	1953	1957 (Plan)
Possible	Iron and steel	Magnetic Ore Dressing Plant No. 2	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	N.A.	October 1955
Possible	Iron and steel	Ore Dressing Plant No. 2	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1955	N.A.
Possible	Iron and steel	Ore Sintering Plant No. 2	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1952	1955
Possible	Iron and steel	Steel Combine	Pen-ch'i, Liaoning 41 <sup>o</sup> 20'N - 123 <sup>o</sup> 45'E	1955	N.A.
Possible	Iron and steel	Steel Combine No. 2	Urumchi, Sinkiang 43 <sup>0</sup> 48'N - 87 <sup>0</sup> 35'E	1956	N.A.
Firm	Machine Build- ing	Automobile Manufac- turing Plant No. 1	Ch'ang-ch'un, Kirin 43 <sup>0</sup> 55'N - 125 <sup>0</sup> 15'E	July 1953	July 1956

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Evaluation	Industry	Installation	Location	Date Started	Date Completed
Firm	Machine Build- ing	Ball Bearing Plant	Lo-yang, Honan 34 <sup>0</sup> 41'N - 112 <sup>0</sup> 28'E	Sep- tember 1955	Partial operation June 1957
Firm	Machine Build- ing	Boiler Plant	Harbin, Heilung- kiang 45°47'N - 126°39'E	October 1954	December 1956
Firm	Machine Build- ing	Condenser Plant	Sian, Shensi 34 <sup>0</sup> 16'N - 108 <sup>0</sup> 54'E	August 1956	Equipment being in- stalled January 1957
Firm	Machine Build- ing	Electric Cable Factory	Mukden, Liaoning 41 <sup>0</sup> 48'N - 123 <sup>0</sup> 27'E	Sep- tember 1953	September 1956
Firm	Machine Build- ing	Electrical Equip- ment Plant North- east No. 4	Harbin, Heilung- kiang 45 <sup>0</sup> 47'N - 126 <sup>0</sup> 39'E	1951	Continu- ing 1954
Firm	Machine Build- ing	Electric Meter and Instrument Plant	Harbin, Heilung- kiang 45 <sup>0</sup> 47'N - 126 <sup>0</sup> 39'E	April 1954	June 1956
Firm	Machine Build- ing	Electronic Tube Plant	Peking, Hopeh 39 <sup>o</sup> 56'N - 116 <sup>o</sup> 24'E	August 1955	October 1956
Firm	Machine Build- ing	Heavy Machinery Plant	Fu-la-erh-chi, Heilungkiang 47 <sup>0</sup> 15'N - 123 <sup>0</sup> 40'E	June 1956	1959 (Plan)
Firm	Machine Build- ing	Heavy Machinery Plant	T'ai-yuan, Shansi 37 <sup>o</sup> 52'N - 112 <sup>o</sup> 33'E	1950	1958 (Plan)
Firm	Machine Build- ing	Heavy Machine Tool Plant	Wu-han, Hupeh 30°34'N - 114°13'E	1955	Second quarter 1958 (Plan)
Firm	Machine Build- ing	High-Voltage Switch Plant	Sian, Shensi 34 <sup>0</sup> 16'N - 108 <sup>0</sup> 54'E	Sep- tember 1956	Instal- lation of equip- ment to start fourth quarter 1957 (Plan)

# Approved For Release 2005/06/23 : CIA-RDP79S01046A000500170001-8 S-E-C-R-E-T

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Firm	Machine Build- ing	Machine Tool Plant	Mukden, Liaoning 41 <sup>0</sup> 48'N - 123 <sup>0</sup> 27'E	April 1953	December 1955
Firm	Machine Build- ing	Measuring and Cutting Tool Plant	Harbin, Heilung- kiang 45 <sup>0</sup> 47'N - 126 <sup>0</sup> 39'E	1953	November 1954
Firm	Machine Build- ing	Mining Machinery and Electrical Equipment Plant	Fu-shun, Liaoning 41°52'N - 123°53'E	1953	1955 (Plan)
Firm	Machine Build- ing	Mining Machinery and Equipment Plant	Lo-yang, Honan 34°41'N - 112°28'E	Under- way July 1956	1958 (Plan)
Firm	Machine Build- ing	Motor Vehicle Plant	Wu-han, Hupeh 30°34'N - 114°13'E	N.A.	N.A.
Firm	Machine Build- ing	Oil Refining and Chemical Equip- ment Plant	Ian-chou, Kansu 36 <sup>0</sup> 03'N - 103 <sup>0</sup> 41'E	July 1957	Sep- tember 1958 (Plan)
Firm	Machine Build- ing	Petroleum Drilling Equipment Plant (Tung-yung)	Ian-chou, Kansu 36 <sup>0</sup> 03'N - 103 <sup>0</sup> 41'E	October 1956	Instal- lation of equip- ment to begin 1957 (Plan)
Firm	Machine Build- ing	Pneumatic Tool Plant	Mukden, Liaoning 41 <sup>0</sup> 48'N - 123 <sup>0</sup> 27'E	July 1952	January 1955
Firm	Machine Build- ing	Radio Equipment Plant	Ch'eng-tu, Szech- wan 30 <sup>0</sup> 40'N - 104 <sup>0</sup> 04'E	October 1954	1958 (Plan)
Firm	Machine Build- ing	Railroad Equip- ment Plant	Ch'ang-ch'un, Kirin 43 <sup>0</sup> 55'N - 125 <sup>0</sup> 15'E	October 1955	End 1957 (Plan)
Firm	Machine Build- ing	Steam Turbine Plant	Harbin, Heilung- kiang 45 <sup>0</sup> 47'N - 126 <sup>0</sup> 39'E	June 1956	1958 (Plan)

Evaluation	Industry	* Installation	Location	Date Started	Date Completed
Firm	Machine Build- ing	Steam Turbine Plant	Shanghai, Kiangsu 31 <sup>0</sup> 14'N - 121 <sup>0</sup> 28'E	Sep- tember 1954	November 1956
Firm	Machine Build- ing	Telecommunications Equipment Manu- facturing Plant	Peking, Hopeh 39 <sup>0</sup> 56'N - 116 <sup>0</sup> 24'E	Feb- ruary 1954	Sep- tember 1957
Firm	Machine Build- ing	Textile Equipment Plant (Ching-wei)	Yu-tz'u, Shansi 37 <sup>0</sup> 42'N - 112 <sup>0</sup> 44'E	May 1951	August 1954
Firm	Machine Build- ing	Tractor Manufac- turing Plant No. 1	Lo-yang, Honan 34 <sup>0</sup> 41'N - 112 <sup>0</sup> 28'E	Sep- tember 1955	1959 (Plan)
Probable	Machine Build- ing	Automobile Acces- sories Plant No. 1	Peking, Hopeh 39°56'N - 116°24'E	August 1955	N.A.
Probable	Machine Build- ing	Ball Bearing Plant	Harbin, Heilung- kiang 45°47'N - 126°39'E	1952	January 1953
Probable	Machine Build- ing	Bridge Building Plant	Feng-t'ai, Hopeh 39°51'N - 116°17'E	1953	May 1954
Probable	Machine Build- ing	Electrical Equip- ment Plant	Mukden, Liaoning 41 <sup>0</sup> 48'N - 123 <sup>0</sup> 27'E	1955	1956 (Plan)
Probable	Machine Build- ing	Electrode Plant	Kirin, Kirin 43 <sup>0</sup> 51'N - 126 <sup>0</sup> 33'E	N.A.	1956
Probable	Machine Build- ing	Internal Combustion Engine Plant	Wu-han, Hupeh 30 <sup>°</sup> 34'N - 114 <sup>°</sup> 13'E	N.A.	N.A.
Probable	Machine Build- ing	Low-Voltage Switch Plant	Mukden, Liaoning 41°48'N - 123°27'E	July 1953	June 1956
Probable	Machine Build- ing	Locomotive and Rolling Stock Plant	Ta-t'ung, Shansi 40°06'N - 113°14'E	August 1957	1960 (Plan)
Probable	Machine Build- ing	Machine Tool Plant No. 1	Tsitsihar, Heilungkiang 47°22'N - 123°57'E	1955	1956 (Plan)

Evaluation	Industry	Installation	Location *	Date Started	Date Completed
Probable	Machine Build- ing	Machine Tool Plant No. 2	Mukden, Liaoning 41 <sup>0</sup> 48'N - 123 <sup>0</sup> 27'E	1953	1955 (Plan)
Probable	Machine Build- ing	Tractor Manufac- turing Plant	Nanking, Kiangsu 32 <sup>0</sup> 03'N - 118 <sup>0</sup> 47'E	1956	1958 (Plan)
Probable	Machine Build- ing	Tractor Manufac- turing Plant	Tientsin, Hopeh 39008'N - 117012'E	Nov- ember 1955	1958 (Plan)
Possible	Machine Build- ing	Aircraft Parts Manufacturing and Repair Plant	Nan-ch'ang, Kiangsi 28 <sup>0</sup> 40'N - 115 <sup>0</sup> 53'E	1952	N.A.
Possible	Machine Build- ing	Electronic Instru- ments Plant	Tientsin, Hopeh 39°08'N - 117°12'E	Prepara- tions under- way May 1957	N.A.
Possible	Machine Build- ing	Grinding Wheel Plant	Chen-chou, Honan 34 <sup>0</sup> 45'N - 113 <sup>0</sup> 40'E	Under- way July 1957	Partial opera- tion, third quarter 1958 (Plan)
Possible	Machine Build- ing	Heavy Machinery Plant	T'ai-yuan, Shansi 37 <sup>0</sup> 52'N - 112 <sup>0</sup> 33'E	1950	In partial operation 1953
Possible	Machine Build- ing	Insulating Mate- rials Plant	Sian, Shensi 34 <sup>0</sup> 16'N - 108 <sup>0</sup> 54'E	1957	1958 (Plan)
Possible	Machine Build- ing	Lathe Plant	Hsiang-t'an, Hunan 27 <sup>0</sup> 51'N - 112 <sup>0</sup> 54'E	1953	1954
Possible	Machine Build- ing	Lathe Plant	Ta-t'ung, Shansi 40°04'N - 113°20'E	August 1957	N.A.

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Possible	Machine Build- ing	Locomotive and Rolling Stock Plant	Dairen, Liaoning 38°55'N - 121°39'E	July 1956	1958 (Plan)
Possible	Machine Build- ing	Measuring and Cutting Tool Plant	Ch'eng-tu, Szech- wan 30 <sup>0</sup> 40'N - 104 <sup>0</sup> 04'E	Мау 1956	1958 (Plan)
Possible	Machine Build- ing	Mining Machinery and Repair Plant	Ta-t'ung, Shansi 40°06'N - 113°14'E	1955	N.A.
Possible	Machine Build- ing	Passenger Car Plant	Ch'ang-ch'un, Kirin 43 <sup>0</sup> 55'N - 125 <sup>0</sup> 15'E	July 1957	1 <b>9</b> 59 (Plan)
Possible	Machine Build- ing	Power Equipment Plant	Harbin, Heilung- kiang 45 <sup>0</sup> 47'N - 126 <sup>0</sup> 39'E	1951	1959 (Plan)
Possible	Machine Build- ing	Steamship Motor Plant	Harbin, Heilung- kiang 45 <sup>0</sup> 47'N - 126 <sup>0</sup> 39'E	N.A.	N.A.
Possible	Machine Build- ing	Turbine Generator Factory	Harbin, Heilung- kiang 45 <sup>0</sup> 47'N - 126 <sup>0</sup> 39'E	Under- way Dec- ember 1957	N.A.
Firm	Electric Power	Hydro Station	A-ma-cha-erh, Heilungkiang (Approx.) 48°52'N - 120°132'E	Survey Feb- ruary 1957	N.A.
Firm	Electric Power	Hydro Station	Hsin-an-chiang, Chekiang (Approx.) 119 <sup>0</sup> 14'N - 29 <sup>0</sup> 29'E	Under- way April 1957	1961 (Plan)
Firm	Electric Power	Hydro Station	I-li-ho, Yunnan (Approx.) 26°00'N - 103°00'E	July 1956	By 1962 (Plan)
Firm	Electric Power	Hydro Station	Lien-yin (opposite Dzhalinda), Heilungkiang (Approx.) 53°29'N - 123°52'E	Being de- signed August 1956	N.A.

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Firm	Electric Power	Hydro Station	Liu-chia Gorge, Kansu (Approx.) 35 <sup>0</sup> 47'N - 102 <sup>0</sup> 45'E	1957 (Plan)	1962 (Plan)
Firm	Electric Power	Hydro Station	San-men Gorge, Honan (Approx.) 35 <sup>0</sup> 00'N - 111 <sup>0</sup> 00'E	April 1957	1961 (Plan)
Firm	Electric Power	Hydro Station	Shang-yu-chiang, Kiangsi (Approx.) 25 <sup>0</sup> 54'N - 114 <sup>0</sup> 34'E	March 1955	November 1957
Firm	Electric Power	Hydro Station	Ta-feng-man, Kirin 43 <sup>0</sup> 43'N - 126 <sup>0</sup> 41'E	1948	1959 (P <b>l</b> an)
Firm	Electric Power	Hydro Station	Wu-ch'iang-ch'i, Hunan N.A.	Being plan-ned Dec-ember 1956	N.A.
Firm	Electric Power	Thermal Station	Cheng-chou, Honan 34 <sup>0</sup> 45'N - 113 <sup>0</sup> 40'E	Dec- ember 1952	January 1954
Firm	Electric Power	Thermal Station	Ch'eng-tu, Szechwan 30 <sup>0</sup> 40'N - 104 <sup>0</sup> 04'E	Nov- ember 1956	N.A.
Firm	Electric Power	Thermal Station	Chu-chou, Hunan 27 <sup>0</sup> 56'N - 112 <sup>0</sup> 58'E	Jan <b>-</b> uary 1956	Partial oper- ation October 1957 (Plan)
Firm	Electric Power	Thermal Station No. 507	Chungking, Szechwan 29 <sup>0</sup> 34'N - 106 <sup>0</sup> 35'E	1952	March 1954
Firm	Electric Power	Thermal Station No. 2	Dairen, Liaoning 38 <sup>o</sup> 55'N - 121 <sup>o</sup> 39'E	Feb- ruary 1954	1955
Firm	Electric Power	Thermal Station	Fou-hsin, Liaoning 42°03'N - 121°39'E	Dec- ember 1951	May 1956

S-E-C-R-E-T

Evaluation	Industry	Insta	llation	Location	Date Started	Date Completed
Firm	Electric Power	Thermal	Station	Fu-shun, Liaoning 41 <sup>0</sup> 45'N - 124 <sup>0</sup> 00'E	July 1952	N.A.
Firm	Electric Power	Thermal No. 4	Station	Harbin, Heilung- kiang 45 <sup>0</sup> 45'N - 126 <sup>0</sup> 39'E	1953	1957 (Plan)
Firm	Electric Power	Thermal	Station	K'ai-yuan, Yunnan 23 <sup>0</sup> 42'N - 103 <sup>0</sup> 14'E	April 1955	Dec- ember 1956
Firm	Electric Power	Thermal	Station	Kirin, Kirin 43 <sup>o</sup> 51'N - 126 <sup>o</sup> 33'E	Jan- uary 1955	Partial oper- ation July 1956
Firm	Electric Power	Thermal	Station	Lan-chou, Kansu 36°03'N - 103°41'E	Dec- ember 1952	November 1957
Firm	Electric Power	Thermal	Station	Peking, Hopeh 39 <sup>o</sup> 56'N - 116 <sup>o</sup> 24'E	July 1957	Partial oper- ation 1958 (Plan)
Firm	Electric Power	Thermal	Station	Shih-chia-chuang, Hopeh 38°02'N - 114°28'E	April 1955	April 1956
Firm	Electric Power	Thermal No. 2	Station	Sian, Shensi 34 <sup>0</sup> 16'N - 108 <sup>0</sup> 54'E	1950	October 1957 (Plan)
Firm	Electric Power	Thermal No. 3	Station	Sian, Shensi 34 <sup>0</sup> 16'N - 108 <sup>0</sup> 54'E	Early 1956	First phase com- pleted summer 1957
Firm	Electric Power	Thermal No. 1	Station	T'ai-yuan, Shansi 37 <sup>0</sup> 42'N - 112 <sup>0</sup> 30'E	October 1953	August 1956
Firm	Electric Power	Thermal.	Station	Urumchi, Sinkiang 43°48'N - 87°35'E	Before 1953	1957 (Plan)
Firm	Electric Power	Thermal		Wu-han, Hupeh 30 <sup>°</sup> 34'N - 114 <sup>°</sup> 13'E	June 1955	Partial oper- ation August 1957

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Probable	Electric Power	Hydro Station	Kuan-t'ing, Hopeh (Approx.) 40°00'N - 115°45'E	May 1954	December 1955
Probable	Electric Power	Hydro Station	Tzu-ping-pu, Szechwan (Approx.) 28 <sup>0</sup> 46'N - 104 <sup>0</sup> 38'E	Prepa- rations under- way 1956	1959 (Plan)
Probable	Electric Power	Thermal Station	An-shan, Liaoning 41 <sup>0</sup> 07'N - 122 <sup>0</sup> 57'E	1954	March 1956
Probable	Electric Power	Thermal Station	Ch'ang-ch'un, Kirin 43 <sup>0</sup> 52'N - 125 <sup>0</sup> 21'E	Dec- ember 1953	Partial opera- tion June 1955
Probable	Electric Power	Thermal Station	Fu-la-erh-chi, Heilungkiang 47 <sup>0</sup> 15'N - 123 <sup>0</sup> 40'E	July 1953	Early 1955
Probable	Electric Power	Thermal Station No. 3	Pao-t'ou, Inner Mongolian Auton- omous Region 40 <sup>0</sup> 36'N - 110 <sup>0</sup> 03'E	Sep- tember 1954	April 1956
Probable	Electric Power	Thermal Station No. 5	T'ai-yuan, Shansi 37 <sup>0</sup> 42'N - 112 <sup>0</sup> 30'E	1955	N.A.
Possible	Electric Power	Hydro Station	Hsin-feng-chiang, Kwangtung (Approx.) 25°56'N - 115°06'E	Being plan- ned May 1957	N.A.
Possible	Electric Power	Hydro Station	Huang-t'ang-k'ou, Chekiang (Approx.) 29°45'N - 120°35'E	1951	Partial opera- tion 1957 (Plan)
Possible	Electric Power	Hydro Station	Ku-t'ien, Fukien 26 <sup>0</sup> 18'N - 118 <sup>0</sup> 42'E	1954	1962 (Plan)
Possible	Electric Power	Hydro Station	Mei-shan, Anhwei (Approx.) 32 <sup>0</sup> 32'N - 115 <sup>0</sup> 52'E	Under- •way August 1955	N.A.

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Possible	Electric Power	Hydro Station	Shih-lung-pa, Yunnan 24 <sup>0</sup> 51'N - 102 <sup>0</sup> 30'E	July 1954	April 1955
Possible	Electric Power	Hydro Station	Shih-tzu-t'an, Szechwan 29 <sup>0</sup> 32'N - 106 <sup>0</sup> 14'E	August 1954	April 1957
Possible	Electric Power	Hydro Station	Wu-la-po, Sinkiang (Approx.) 43°48'N - 87°35'E	October 1951	August 1955
Possible	Electric Power	Thermal Station	Ch'eng-tu, Szechwan 30 <sup>0</sup> 40'N - 104 <sup>0</sup> 04'E	October 1953	April 1955
Possible	Electric Power	Thermal Station	Hsiang-t'an, Hunan 27 <sup>0</sup> 51'N - 112 <sup>0</sup> 54'E	1953	1956 (Plan)
Possible	Electric Power	Thermal Station	Lo-yang, Honan 34 <sup>0</sup> 41'N - 112 <sup>0</sup> 28'E	Under- way 1954	1955
Possible	Electric Power	Thermal Station	Lo-yang, Honan 34 <sup>0</sup> 41'N - 112 <sup>0</sup> 28'E	Under <b>-</b> way 1956	October 1957 (Plan)
Possible	Electric Power	Thermal Station	Pao-t'ou, Inner Mongolian Auton- omous Region 40°36'N - 110°03'E	March 1956	N.A.
Possible	Electric Power	Thermal Station No. 2	Pao-t'ou, Inner Mongolian Auton- omous Region 40°36'N - 110°03'E	Under- way 1957	1957
Possible	Electric Power	Thermal Station	Tientsin, Hopeh 39 <sup>0</sup> 08'N - 121 <sup>0</sup> 39'E	June 1953	Partial opera- tion May 1954 (Plan)
Firm	Coal In- dustry	Mine	Feng-feng, Hopeh (Approx.) 36°30'N - 114°00'E	Nov- ember 1955	Before Sep- tember 1957

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Evaluation	Industry	Installation	Location	Date Started	Date Completed
Firm	Coal In- dustry	Mine (Hai-chou)	Fou-hsin, Liaoning 42°06'N - 121°42'E	1950	1956 (Plan)
Firm	Coal In- dustry	Mine (P'ing-an)	Fou-hsin, Liaoning 42°06'N - 121°42'E	1954	June 1957
Firm	Coal In- dustry	Mine (Hsing-an-tai)	Hao-kang, Heilung- kiang 47°25'N - 132°08'E	1950	July 1956
Firm	Coal In- dustry	Mine (Tung-shan)	Hao-kang, Heilungkiang 47°20'N - 130°18'E	1950	Sep- tember 1955
Firm	Coal In- dustry	Mine (Hsieh-chia- chi) No. 2 and No. 3	Huai-nan, Anhwei 32 <sup>°</sup> 38'N - 117 <sup>°</sup> 02'E	1954	July 1956
Firm	Coal In- dustry	Mine	Liao-yuan (Hsi-an), Kirin 42 <sup>0</sup> 54'N - 125 <sup>0</sup> 09'E	N.A.	By Jan- uary 1957
Firm	Coal In- dustry	Mine	P'ing-ting-shan, Honan 34°01'N - 113°49'E	1955	1959 (Plan)
Firm	Coal In- dustry	Mine	Shuang-liao (Liao-yuan), Kirin 43 <sup>0</sup> 30'N - 123 <sup>0</sup> 29'E	1950	December 1955
Firm	Coal In- dustry	Preparation Plant (2 plants)	Feng-feng, Hopeh (Approx.) 36 <sup>o</sup> 30'N - 114 <sup>o</sup> 00'E	Jan <b>-</b> uary 1957	N.A.
Firm	Coal In- dustry	Preparation Plant	Shuang-ya-shan, Heilungkiang (Approx.) 46°37'N - 131°10'E	May 1955	1958 (Plan)
Probable	Coal In- dustry	Mine (Ta-ma-ts'un)	Chiao-tso, Honan 35 <sup>0</sup> 15'N - 113 <sup>0</sup> 13'E	Sep- tember 1955	1956
Probable	Coal In- dustry	Mine (Hsiao-heng-shan)	Chi-hsi, Heilungkiang 45°15'N - 131°00'E	July 1950	1955

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Probable	Coal In- dustry	Mine (Hsin-ch'iu)	Fou-hsin, Liaoning 42°06'N - 121°42'E	Dec- ember 1954	August 1957 (Plan)
Probable	Coal In- dustry	Mine (Lao-hu-tai)	Fu-shun, Liaoning 41°53'N - 123°54'E	1953	1959 (Plan)
Probable	Coal In- dustry	Mine (Lung-feng)	Fu-shun, Liaoning 41 <sup>0</sup> 53'N - 123 <sup>0</sup> 54'E	1953	1957 (Plan)
Probable	Coal In- dustry	Mine (Tsai-tun)	Pen-ch'i, Liaoning 41°20'N - 123°45'E	April 1950	December 1954
Probable	Coal In- dustry	Mine	P'ing-hsiang, Kiangsi 27 <sup>0</sup> 37'N - 113 <sup>0</sup> 51'E	1954	N.A.
Probable	Coal In- dustry	Mine	Ta-t'ung, Shansi 40°06'N - 113°14'E	N.A.	N.A.
Probable	Coal In- dustry	Mine (Tao-yuan)	T'ung-ch'uan, Shensi 35 <sup>0</sup> 00'N - 109 <sup>0</sup> 07'E	May 1956	1958 (Plan)
Probable	Coal In- dustry	Mine (Wang-chia- ho)	T'ung-ch'uan, Shensi 35 <sup>0</sup> 00'N - 109 <sup>0</sup> 07'E	June 1955	1958 (Plan)
Probable	Coal In- dustry	Preparation Plant	Pen-ch'i, Liaoning 41°20'N - 123°45'E	Early 1955	End 1955
Probable	Coal In- dustry	Preparation Plant (2 plants)	P'ing-ting-shan, Honan 34 <sup>0</sup> 01'N - 113 <sup>0</sup> 49'E	N.A.	N.A.
Possible	Coal In- dustry	Mine	I-t'ang, Shansi (Approx.) 36°40'N - 110°30'E	1955	N.A.
Possible	Coal In- dustry	Mine	Ma-chia-kou, Hopeh 39 <sup>0</sup> 42'N - 118 <sup>0</sup> 13'E	Dec- ember 1954	Still under construc- tion July 1957
Possible	Coal In- dustry	Mine	Sian, Shensi 34 <sup>0</sup> 16'N - 108 <sup>0</sup> 54'E	N.A.	1958 (Plan)

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Firm	Aircraft Industry	Aircraft Facility	Mukden, Liaoning 41 <sup>0</sup> 48'N - 123 <sup>0</sup> 27'E	N.A.	Before January 1957
Firm	Chemical Industry	Calcium Carbide Plant	Kirin, Kirin 43 <sup>0</sup> 51'N - 126 <sup>0</sup> 33'E	3rd quarter 1955	October 1957
Firm	Chemical Industry	Chemical Plant	Shih-chia-chuang, Hopeh 38 <sup>0</sup> 02'N - 114 <sup>0</sup> 28'E	June 1955	August 1956
Firm	Chemical Industry	Chemical Plant	T'ai-yuan, Shansi 37 <sup>0</sup> 42'N - 112 <sup>0</sup> 30'E	Under- way Nov- ember 1957	N.A.
Firm	Chemical Industry	Dyestuffs Plant	Kirin, Kirin 43 <sup>0</sup> 51'N - 126 <sup>0</sup> 33'E	April 1955	October 1957
Firm	Chemical Industry	Nitrogenous Fertilizer Plant	Kirin, Kirin 43 <sup>o</sup> 51'N - 126 <sup>o</sup> 33'E	April 1955	October 1957
Firm	Chemical Industry	Nitrogenous Fertilizer Plant	Ian-chou, Kansu 36 <sup>0</sup> 03'N 103 <sup>0</sup> 41'E	March 1957	1959 (Plan)
Firm	Chemical Industry	Nitrogenous Fertilizer Plant	T'ai-yuan, Shansi 37 <sup>0</sup> 42'N - 112 <sup>0</sup> 30'E	Spring 1958 (Plan)	N.A.
Firm	Chemical Industry	Pharmaceutical Plant	Mukden, Liaoning 41 <sup>0</sup> 48'N - 123 <sup>0</sup> 27'E	August 1953	1956 (Plan)
Firm	Chemical Industry	Pharmaceutical Plant	T'ai-yuan, Shansi 37 <sup>0</sup> 42'N - 112 <sup>0</sup> 30'E	Spring 1958 (Plan)	N.A.
Firm	Chemical Industry	Synthetic Rubber (Neoprene) Plant	Ch'ang-shou, Szechwan 29 <sup>0</sup> 50'N - 107 <sup>0</sup> 04'E	Under- way July 1957	Second quarter 1958 (Plan)
Firm.	Chemical Industry	Synthetic Rubber Plant	<pre>Lan-chou, Kansu 36<sup>0</sup>03'N - 103<sup>0</sup>41'E</pre>	N.A.	N.A.
Probable	Chemical Industry	Chemical Combine	Dairen, Liaoning 38°55'N - 121°39'E	1952	1956
Probable	Chemical Industry	Pharmaceutical Plant	Peking, Hopeh 39°56'N - 116°24'E	April 1955	1958 (Plan)

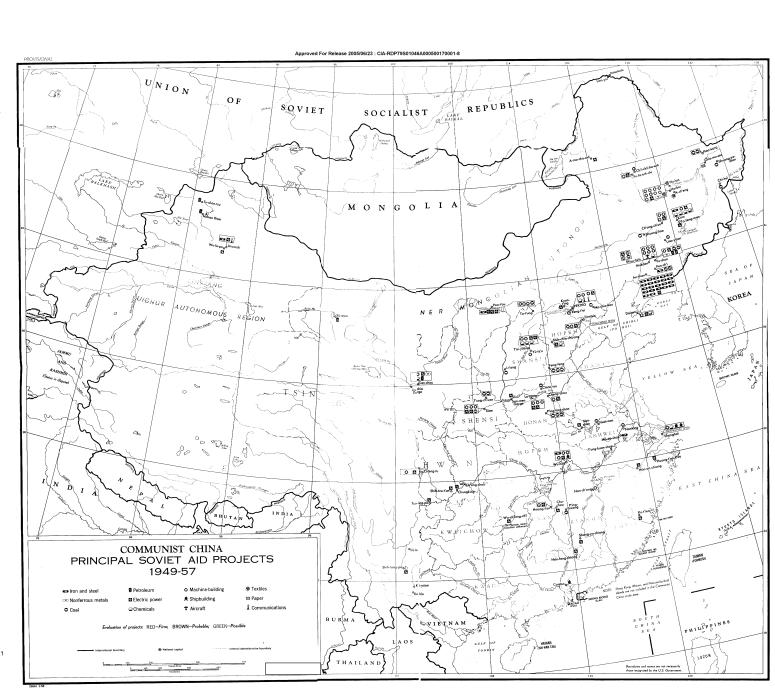
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Evaluation	Industry	Installation	Location	Date Started	Date Completed
Probable	Chemical Industry	Synthetic Rubber Plant	Kirin, Kirin 43°51'N - 126°33'E	N.A.	N.A.
Possible	Chemical Industry	Pharmaceutical Plant No. 3	Shanghai, Kiangsu 31 <sup>0</sup> 14'N - 121 <sup>0</sup> 28'E	1952	Before Jan- uary 1957
Firm	Non- ferrous Metals In- dustry	Aluminum Plant	Fu-shun, Liaoning 41 <sup>0</sup> 52'N - 123 <sup>0</sup> 53'E	1953	October 1956
Firm	Non- ferrous Metals In- dustry	Aluminum-Alloy Plant	Harbin, Heilung- kiang 45°47'N - 126°39'E	1954	1956
Firm	Non- ferrous Metals In- dustry	Tin Combine	Ko-chiu, Yunnan 23 <sup>°</sup> 23'N - 103 <sup>°</sup> 09'E	1951	1955
Possible	Non- ferrous Metals In- dustry	Copper Combine	Ian-chou, Kansu 36 <sup>o</sup> 03'N - 103 <sup>o</sup> 41'E	N.A.	N.A.
Possible	Non- ferrous Metals In- dustry	Copper Combine	T'ung-kuan-shan, Anhwei (Approx.) 30°56'N - 117°47'E	Under- way March 1953	1957
Firm	Paper In- dustry	Paper Mill (Tsung-ho)	Chia-mu-ssu, Heilungkiang 46°50'N - 130°21'E	<b>J</b> une 1953	Sep- tember 1957
Firm	Petro- leum In- dustry	Refinery	Lan-chou, Kansu 36 <sup>0</sup> 03'N - 103 <sup>0</sup> 41'E	April 1956	1958 (Plan)
Firm	Petro- leum In- dustry	Refinery	Manas River, Sinkiang 45°38'N - 85°12'E	Survey under- way Dec- ember 1956	1962 (Plan)

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Evaluation	Industry	Installation	Location	Date Started	Date Completed
Firm	Petro- leum In- dustry	Shale Oil Processing Plant	Fu-shun East, Liaoning 41 <sup>0</sup> 51'N - 123 <sup>0</sup> 52'E	July 1957	1960 (Plan)
Possible	Petro- leum In- dustry	Refinery	Tu-shan-tzu, Sinkiang 44 <sup>0</sup> 20'N - 84 <sup>0</sup> 51'E	1952	1956
Possible	Petro- leum In- dustry	Refinery	Yu-men, Kansu 39 <sup>0</sup> 42'N - 97 <sup>0</sup> 50'E	1954	Con- struc- tion contin- uing in 1958
Possible	Petro- leum In- dustry	Shale Oil Processing Plant No. 2	Fu-shun, Liaoning 41 <sup>0</sup> 52'N - 123 <sup>0</sup> 53'E	May 1953	December 1954
Firm	Textile In- dustry	Flax Mill	A-ch'eng, Heilung- kiang 45 <sup>0</sup> 32'N - 126 <sup>0</sup> 59'E	1953	April 1955
Firm	Textile In- dustry	Flax Mill	Hu-lan, Heilung- kiang 45 <sup>0</sup> 59'N - 126 <sup>0</sup> 36'E	1953	April 1955
Firm	Textile In- dustry	Linen Mill	Harbin, Heilung- kiang 45 <sup>0</sup> 45'N - 126 <sup>0</sup> 39'E	July 1950	October 1952
Firm	Ship- build- ing In- dus/try	Shipyard	Canton, Kwangtung 23°07'N - 113°15'E	Under- way 1957	1958 (Plan)
Firm	Ship- build- ing In- dustry	Shipyard (Hu-tung)	Shanghai, Kiangsu 31 <sup>0</sup> 14'N - 121 <sup>0</sup> 28'E	1953	Before Nov- ember 1957
Firm	Ship- build- ing In- dustry	Shipyard	Wu-han, Hupeh 30 <sup>0</sup> 32'N - 114 <sup>0</sup> 18'E	1953	Before Nov- ember 1957

Evaluation	Industry	Installation	Location	Date Started	Date Completed
Possible	Ship- build- ing In- dustry	Shipyard (Kiang-nan)	Shanghai, Kiangsu 31 <sup>0</sup> 14'N - 121 <sup>0</sup> 28'E	1953	Before Nov- ember 1957
Firm	Communi- cations Industry	Central Telegraph Building	Peking, Hopeh 39 <sup>0</sup> 56'N - 116 <sup>0</sup> 24'E	Мау 1956	1958 (Plan)
Possible	Communi - cations Industry	Telecommunications Building	Ch'eng-tu, Szechwan 30 <sup>0</sup> 40'N - 104 <sup>0</sup> 04'E	Under- way Feb- ruary 1957	Third quarter 1957 (Plan)
Possible	Communi- cations Industry	Telecommunications Building	Urumchi, Sinkiang 43 <sup>0</sup> 48'N - 87 <sup>0</sup> 35'E	Sep- tember 1956	N.A.
Possible	Communi- cations Industry	Television Station	Peking, Hopeh 39 <sup>0</sup> 56'N - 116 <sup>0</sup> 24'E	Under- way June 1957	Summer 1958 (Plan)



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